

AMENDMENTS TO THE SPECIFICATION:

Page 1, before the subject heading FIELD OF THE INVENTION, please insert the following new paragraph:

--This is a 371 national stage application of International Application No. PCT/JP2004/012189, filed August 25, 2004, which claims priority to Japanese Application No. 2003-300646, filed August 25, 2003. The entire contents of the above-referenced applications are hereby incorporated by reference in their entirety.--

Page 5, please amend the first full paragraph as follows:

--~~Fig. 1.~~ Figure. A schematic diagram of an atmosphere control high-frequency-induction-heating type micro pulling down apparatus.--

Page 10, please amend the first paragraph as follows:

--Among the crystals of the present invention,  $\text{Pr}_{1-x}\text{Ce}_x\text{F}_3$ , that of  $x = 0.01$  was grown by the fluoride micro PD method. High purity  $\text{PrF}_3$  and  $\text{CeF}_3$  as the materials were weighed and mixed, and then were charged in a high purity platinum crucible with a small pore at the bottom. As shown in ~~Fig. 1~~ the Figure, a seed, a stage, after heater, thermal insulating material, and the crucible charged with materials were arranged, and were heated to 700 °C in vacuo exhausted to about  $1 \times 10^{-3}$  Pa with an oil rotary pump and an

oil diffusion pump. Then, the inside of the chamber was replaced by Ar gas. The sample was then melted by being heated to about 1450 °C with a high frequency coil. The bottom of the crucible was monitored with a CCD camera. When the melt appeared from the small pore at the crucible bottom, a seed crystal was attached to it and was pulled down at a rate 0.05-0.5 mm/min to be solidified. As a result, a green clear crystal with  $\phi 3$  mm and 50mm in length was obtained. When the obtained crystal was irradiated by X-ray at room temperature, strong luminescence was observed at 290 nm, and also at 400nm.--